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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/599,432	09/28/2006	Akihiro Toshima	20708/0205525-US0	8748

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EXAMINER

DIAZ, THOMAS C

ART UNIT	PAPER NUMBER
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3682

MAIL DATE	DELIVERY MODE
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09/04/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/599,432	Applicant(s) TOSHIMA ET AL.	
	Examiner THOMAS DIAZ	Art Unit 3682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09/28/2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Marr (USP 0756670).

Regarding claim 1, Marr discloses a steering apparatus comprising:

- a steering drive shaft [capable of moving in an axial direction in response to a steering operation](fig.2,C; The shaft is capable of moving in an axial direction such as when the vehicle moves or during a collision);
- a housing accommodating the steering drive shaft and having a tube part; and (fig.2, c; lower case c, has a tube part A³)
- a bracket (fig.2, A' and A²; plates that form the bracket) having a fitting hole (see fig.2, hole between the plates through which the shaft enters) into which said tube part is fitted and [configured to attach said housing to a car body] (the bracket has members F which connect to car body),
- wherein said bracket has a recess (fig.2,a) in said fitting hole and said tube part has an escape preventing protrusion (fig.2, b) bent into said recess (col.1, lines 40-43; the protrusions are bent in order to fit into the

recess. The line "adapted to fit into the grooves" and fig.2, b read on "bent into said recess"), [for preventing said bracket from escaping.]

Regarding claim 2, Marr discloses wherein said recess is a circular groove (col.1 or page 1, lines 37-38).

Regarding claim 3, the tube part is metal (see fig.2, A³).

Regarding claim 5, Marr discloses wherein said recess is a circumferential groove (col.1 or page 1, lines 37-38; they're circular and thus are circumferential).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Salch (USP 2836079) in view of Rood (USP 2479702)..

Regarding claim 4, Salch discloses:

- A steering drive shaft corresponding to fig. 16, # 56.
- A housing having a tube part corresponding to fig. 5, # 31.
- A bracket (fig.4, 20; includes pawl from fig.16, 78) having a fitting hole corresponding to fig.4, and having a recess corresponding to fig. 4, # 72. The fitting hole isn't labeled but is clearly depicted in fig. 4 as the space where the

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tube collar would be fitted. In addition, these components are attached to the vehicle as disclosed Col.1 Line 72 - Col.2 Line 3.

- An escape preventing protrusion on said tube part corresponding to fig.5, # 64, 75.
- A recess is a circular groove corresponding to fig. 4, # 72. As depicted in the picture the recesses are circular because they have an arch shape.

Salch does not disclose a fitting step of fitting said metal tube part into a fitting hole of a bracket provided with said fitting hole into which said metal tube part is fitted and which has a recess in an inner side thereof, and with an attached part attached to the car body; and a step of pressing said metal tube part outward in a radial direction from an inner side of the metal tube part after the fitting step, and thereby bending a part of said metal tube part into said recess, for preventing said bracket from escaping.

Rood teaches a step of pressing said metal tube part outward in a radial direction from an inner side of the metal tube part after the fitting step, and thereby bending a part of said metal tube part into said recess. Rood does this for the purpose of creating a connection between two pipes in a cheap and simple manner.

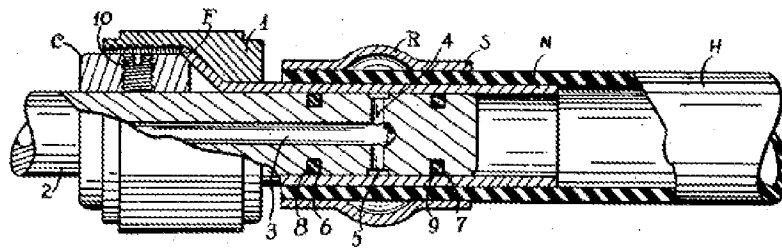


Fig. 1

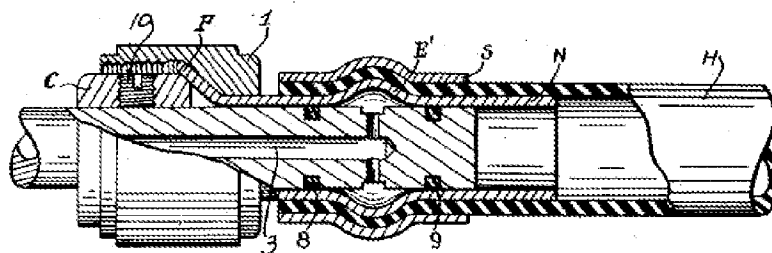


Fig. 2

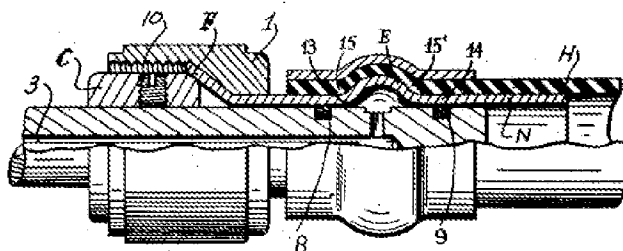


Fig. 3

INVENTOR.
ALVIN A. ROODBY *Ridgely & Watts*

ATTORNEYS

It would have been obvious to one of ordinary skill in the art at the time of the invention to perform a fitting step of fitting said metal tube part into a fitting hole of a bracket provided with said fitting hole into which said metal tube part is fitted and which has a recess in an inner side thereof, and with an attached part attached to the car body; using Salch's invention.

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It would have been obvious to one of ordinary skill in the art at the time of the invention to use the method taught by Rood comprising a step of pressing said metal tube part outward in a radial direction from an inner side of the metal tube part after the fitting step, and thereby bending a part of said metal tube part into said recess in order to make the protrusions disclosed in Salch and press them into the bracket's recess in engagement with the pawls. The method taught by Rood was a cheap and simple way to create grooves or protrusions in pipe or tube like structures.

Examiner notes that the protrusions are capable of preventing said bracket from escaping. The bracket can not escape since the protrusions run along the length of the tube part. The protrusions in combination with the pawls can prevent the bracket from escaping. Additionally, the bracket can't escape the tube part since it is enclosed at both ends.

5. Regarding the functional recitation(s) in the claim(s) above denoted by the "[]" the examiner notes while features of an apparatus may be recited either structurally or functionally, claims directed to >an< apparatus must be distinguished from the prior art in terms of structure rather than function. The reference discloses all the claimed structural limitations and therefore anticipates the claim. See MPEP 2114.

Response to Arguments

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6. Applicant's arguments with respect to claims 1-3 have been considered but are moot in view of the new ground(s) of rejection.

7. Applicant's arguments filed 06/26/2008 in regards to claim 4 have been fully considered but they are not persuasive. Applicant argues that the references are not combinable because Rood uses his/her method or apparatus for connecting tubular members in "a rigid secure and tightly sealed manner". Examiner reminds applicant that the method/apparatus employed by Rood is used for creating a protrusion in the pipe member by bending a portion of the pipe. Thus this apparatus solves the problem of creating a protrusion by bending a portion of a tube part in an outwardly radial direction. The examiner is combining the reference in order to provide the step of pressing the tube part outward and creating the protrusions disclosed by Salch.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to THOMAS DIAZ whose telephone number is (571)270-5461. The examiner can normally be reached on Monday-Friday 8:30am to 5:30pm, First Friday's off..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on (571)272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Richard WL Ridley/
Supervisory Patent Examiner, Art Unit 3682

/ Thomas Diaz/
Examiner, Art Unit 3682